

In FIG. 15, the data packet is transmitted at block 1502, which shows that the at least one first user unique parameter may include at least one selected from the group consisting of a transmit power level, fine frequency tuning information, timing information, and transmit equalization information.

Referring to FIG. 16, a wide-band channel is allocated for transmission of relatively long packets at block 1602. For example, headend 1012 may allocate the wide-band channel. A narrow-band channel is allocated for transmission of relatively short packets at block 1604. For example, headend 1012 may allocate the narrow-band channel. At block 1606 a data packet having a data packet length is transmitted using either the wide-band channel or the narrow-band channel based on the data packet length. For example, cable modem 12 may transmit the data packet.

In FIG. 17, a first carrier frequency is allocated for communication of comparatively short packets using a comparatively low symbol rate at block 1702. For example, cable modem 12 or headend 1012 may allocate the first carrier frequency. A second carrier frequency that is different from the first carrier frequency is allocated for communication of comparatively long packets using a comparatively high symbol rate at block 1704. For example, cable modem 12 or headend 1012 may allocate the second carrier frequency. At block 1706, a data packet having a data packet length is transmitted using either the first carrier frequency or the second carrier frequency based on the data packet length.

Amendments to the Drawings

Figures 14-17 are presently added. These figures are discussed in the Remarks section under the heading "Objections to the Drawings."